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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,463

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Hyunjun Kim

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25943

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EXAMINER

HYEON, HAE M

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/728,463	Applicant(s) KIM ET AL.	
	Examiner Hae M Hyeon	Art Unit 2839	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

In the paragraph [0011], lines 4-6, "42 and 44" should be -- 40 and 42 --.

Appropriate correction is required.

### ***Claim Objections***

2. Claim 6 recites the limitation "the distance" in line 14. There is insufficient antecedent basis for this limitation in the claim. Claim 11 has the same problem in line 12.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kucharek et al (4,597,029).

Kucharek discloses an electronic assembly comprising an integrated circuit (IC) package 38 having a first planar surface with a plurality of land pads 108, a circuit board (not shown, see column 3, lines 51-54) having a second planar surface with a plurality of electrical contacts, a land-grid-array (LGA) socket disposed between the first and the second planar surfaces including a frame 30 and 24 and at least one pair of a power 116 and a ground 124 connector. The power

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connector 116 includes a first broadside portion 118 and the ground connector 124 includes a second broadside portion 126. The first broadside portion 118 and the second broadside 126 are disposed in an adjacent, spaced-apart, and substantially parallel relationship. The power 116 and the ground 124 connectors of the pair are disposed and configured to be mirror images of each other relative to geometric plane substantially bisecting the distance between the power and the ground connector (see column 8, lines 22-34). The geometric plane is substantially perpendicular to the first and the second planar surfaces.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 5, and 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kucharek et al in view of Szu (6,695,624 B1).

Claim 11 recites the system comprising an electronic assembly of claim 6, a dynamic random access memory coupled to the electronic assembly and an input/output interface coupled to the electronic assembly. Claims 12-14 recites specific electronic devices used in the system. Although Kucharek does not disclose a system having the specific electronic devices recited in claims 12-14, it would have been obvious at a time the invention was made to a person having ordinary skill in the art to use the electronic assembly of claim 6 in the system of claim 11

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because the electronic assembly can be used with different systems. Furthermore, the devices recited in claims 12-14 are commonly known devices.

Claims 4, 5, 9, 10, 16 and 17 recite the distinct shape of the power and the ground connectors. However, the power and the ground connectors of Kucharek do not have the shape as recited in these claims.

Szu discloses an electrical connector 1 comprising a broadside 131 with an arcuate arm extending outwardly from one end of the broadside 131 in a direction perpendicular the broadside and a soldering contact 12 mounted on the end of the arcuate arm. The connector 1 also includes a bracket portion 132 extending outwardly in the same direction as the arcuate arm and a mating contact 15 mounted on the end of the bracket portion 132. Szu teaches that the connector 1 provides a high elasticity contact for use in an electrical connector, which enables reliable electrical connection between an electronic package and a printed circuit board while, at the same time, making the connector easy to manufacture.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the connector taught by Kucharek such that it would have the shape as taught by Szu because it provides a high elasticity contact for use in an electrical connector, which enables reliable electrical connection between an electronic package and a printed circuit board while, at the same time, making the connector easy to manufacture.

### ***Conclusion***

**It is unnecessary, however, that inventions of references be physically combinable to render obvious an applicant's invention. *In re Sneed*, 710 F.2d 1544, 1550, 218 USPQ 385,**

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389 (Fed. Cir. 1983). The test for obviousness is not whether the features of a reference may be bodily incorporated into the structure of another reference but what the combined teachings of those references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871,881 (CCPA 1981).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hae M Hyeon  
Primary Examiner  
Art Unit 2839

hnh hnh

Hae Moon Hyeon